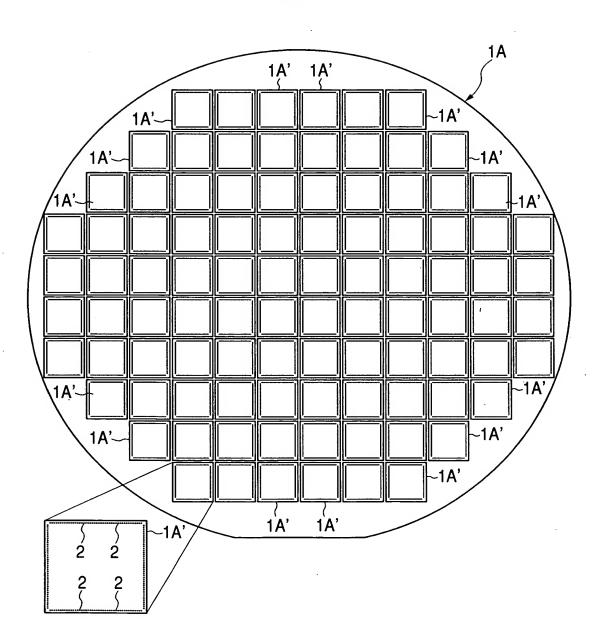
FIG. 1



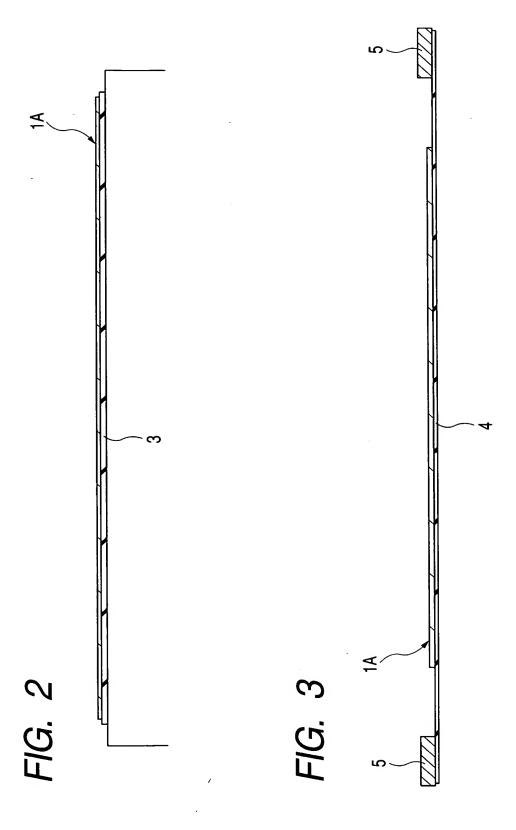


FIG. 4

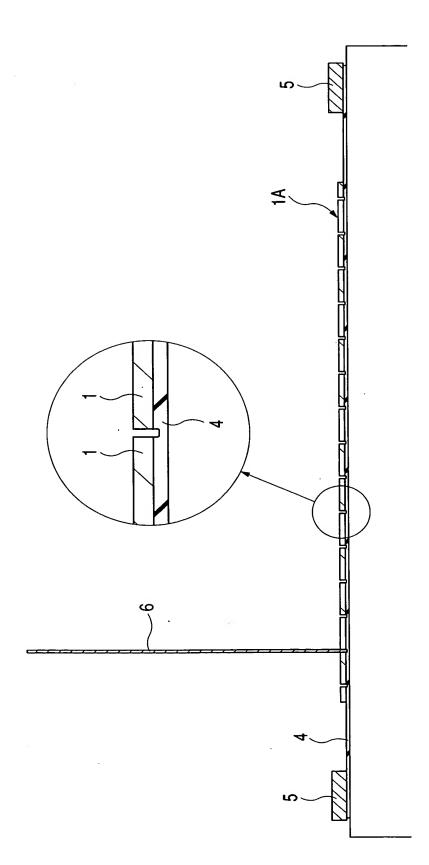
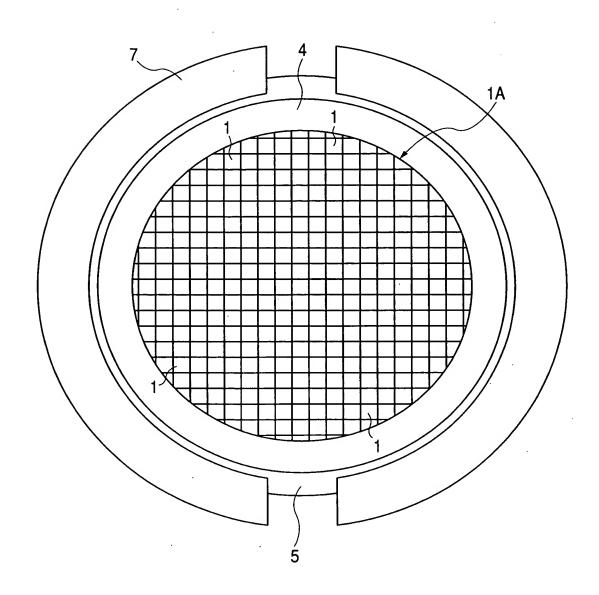
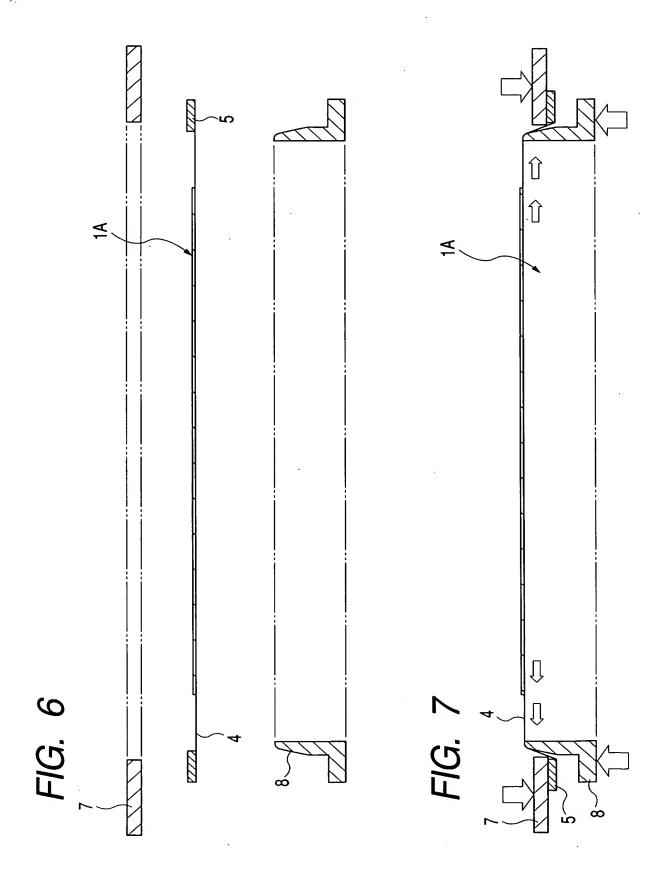


FIG. 5





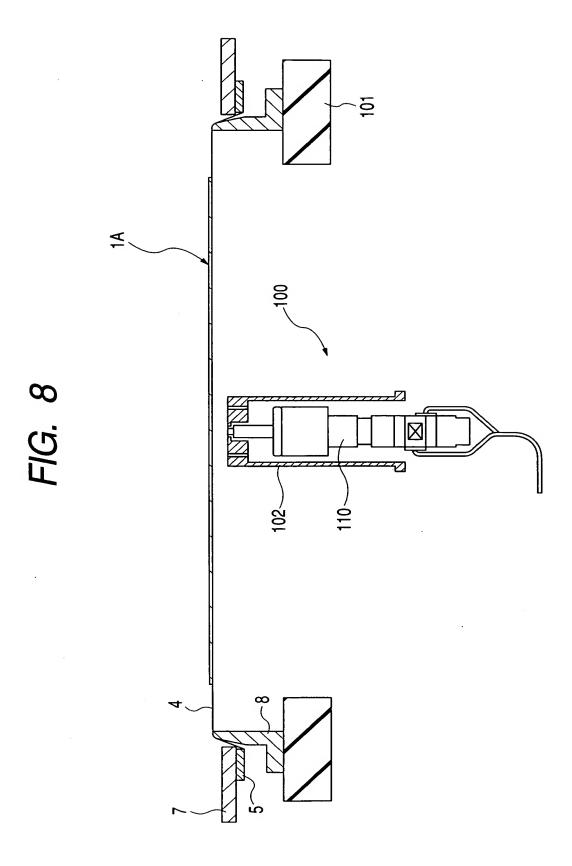


FIG. 9

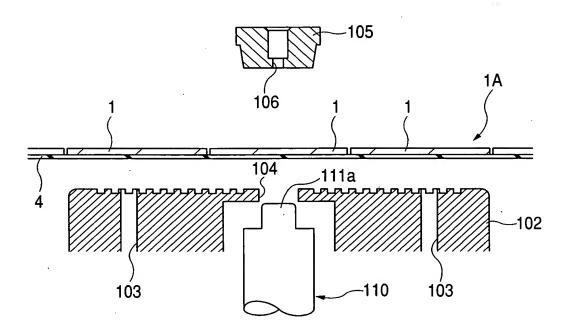


FIG. 10

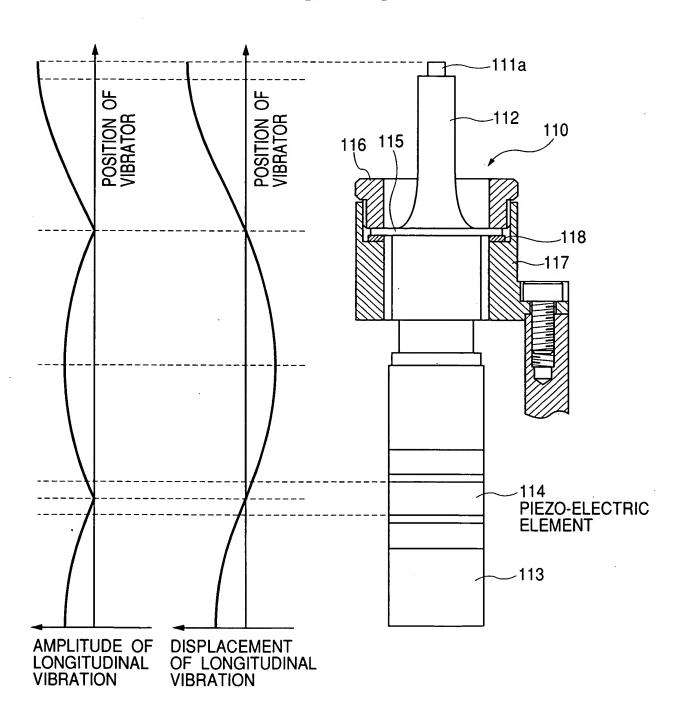


FIG. 11

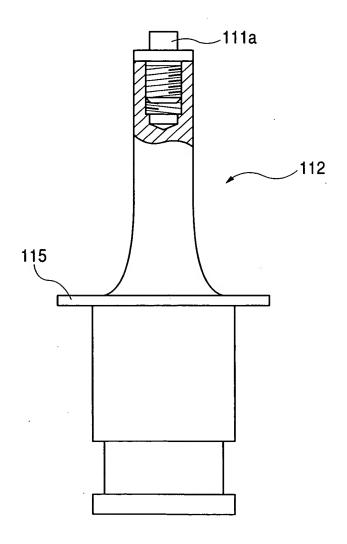
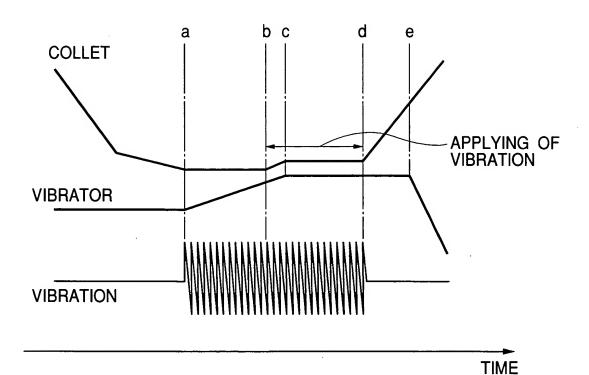
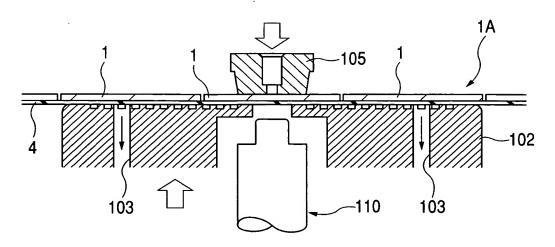


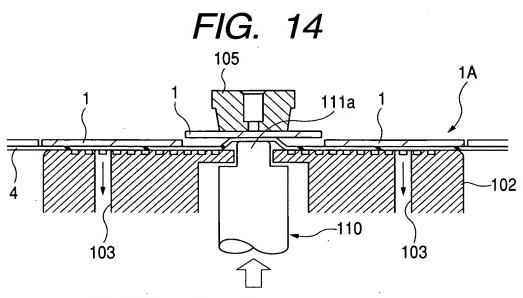
FIG. 12



- a: COLLET BROUGHT INTO CONTACT AND LOWERING OF COLLET STOPPED
- b: VIBRATOR BROUGHT INTO CONTACT AND APPLYING OF VIBRATION STARTED
- c: ELEVATION OF VIBRATOR STOPPED
- d: ELEVATION OF COLLET STARTED AND APPLYING OF VIBRATION STOPPED

FIG. 13

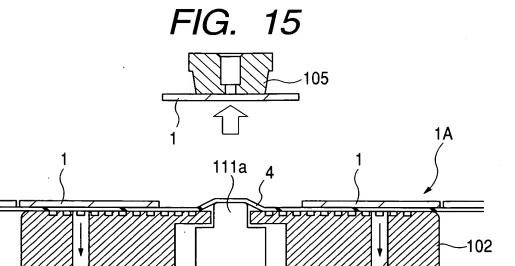




1: SEMICONDUCTOR CHIP

4: ADHESIVE TAPE

110: VIBRATOR



-110

103

FIG. 16

103

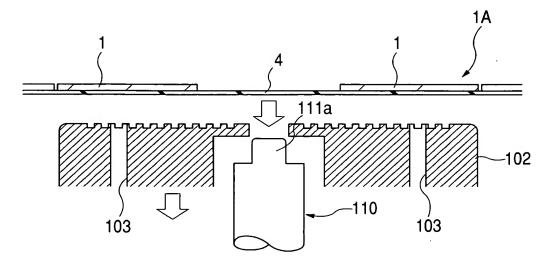


FIG. 17

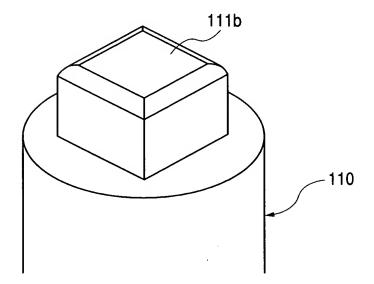


FIG. 18

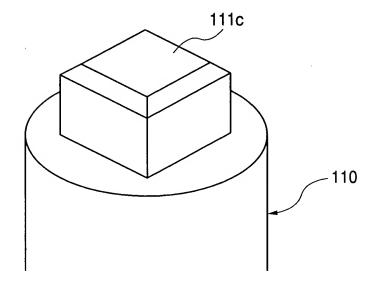


FIG. 19

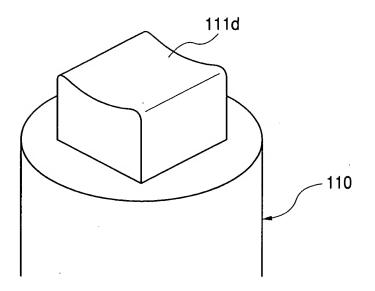
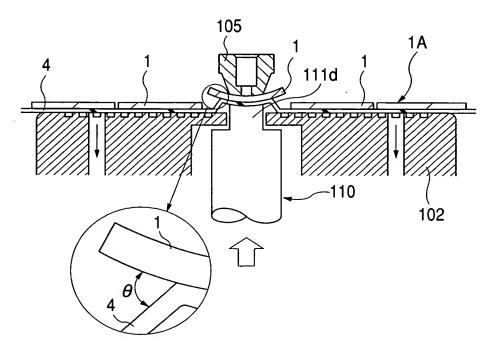
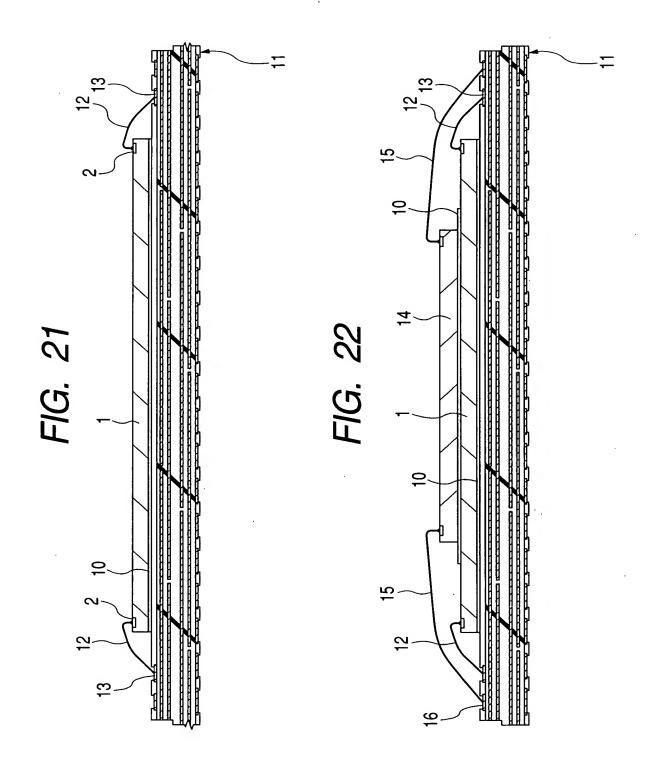


FIG. 20





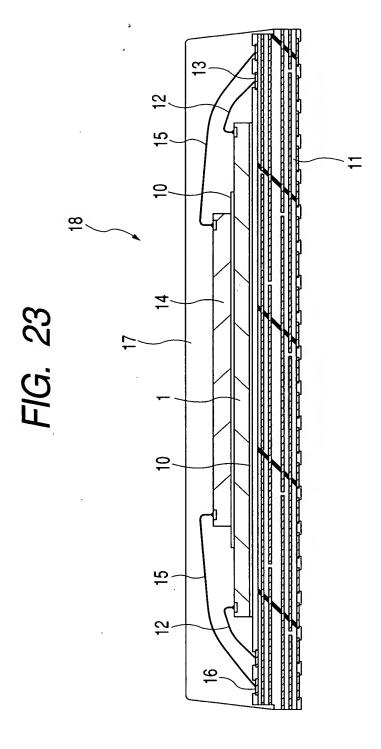
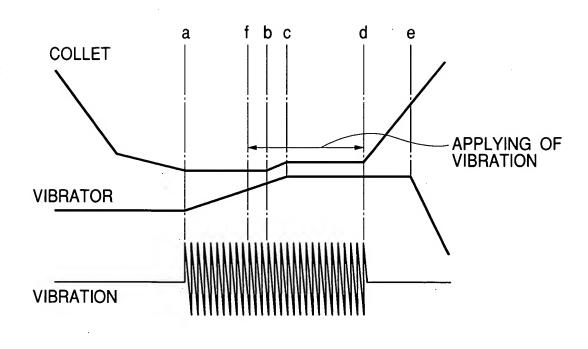


FIG. 24



TIME

- a: COLLET LOWERED AND STOPPED BEFORE BEING BROUGHT INTO CONTACT WITH CHIP
- f: VIBRATOR BROUGHT INTO CONTACT AND APPLYING OF VIBRATION STARTED
- b: COLLET AND CHIP BROUGHT INTO CONTACT WITH EACH OTHER AND CHIP BEING HELD
- c: ELEVATION OF VIBRATOR STOPPED
- d: ELEVATION OF COLLET STARTED AND APPLYING OF VIBRATION STOPPED

FIG. 25

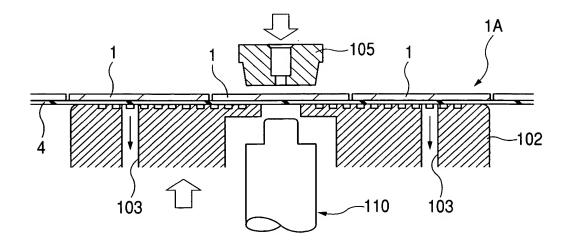


FIG. 26

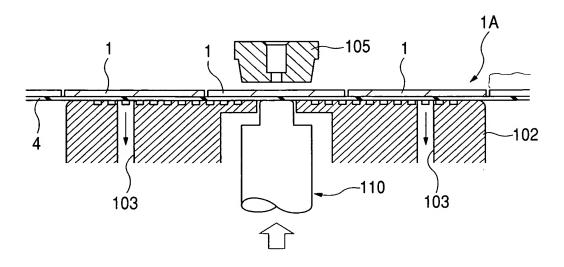


FIG. 27

